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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,055	09/25/2000	BILLY G MOON	062891.0413	4091

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EXAMINER

EUGENE, WANDA

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 03/11/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/670,055

Applicant(s)

MOON ET AL.

Examiner

Wanda Eugene

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2666

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-12 and 14-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Kusaki et al. (6263204).

Regarding claims 1, 8, 9, 15, 16, 22, 23, 29 and 30, Kusaki discloses a communications system comprising a mobile unit operable to transmit information (**mobile station 100** fig 1); a first base transceiver station (BTS) operable to receive the information (**base station 200A** fig 1), determine a first value for a metric associated with communications between the mobile unit and the first BTS (**the information derived from the same mobile station is superimposed on the frame via a plurality of base stations** col. 3 lines 50-52), and generate a first graded packet encoding the first value and the information (**the first base station transmits a cell utilizing the information converted from the wireless station transmission** col. 3 lines 13-22); a second BTS operable to receive the information (**base station 200B** fig 1), determine a second value for a metric associated with communications between the mobile unit and the second BTS (**the information derived from the same mobile station is superimposed on the frame via a plurality of base stations** col. 3 lines 50-52), and generate a second graded

Art Unit: 2666

packet encoding the second value and the information (**the second base station transmits a cell utilizing the information converted from the wireless station transmission col. 3 lines 13-22**); and a router operable to receive the first graded packet and the second graded packet (**communication data and control data transmitted from the mobile station, via data path to base stations to the mobile switch center col. 6 lines 1-7**), the router further operable to select one of the graded packets for further communication (**mobile switching center select a cell whose error rate is lower than the other cell rate col. 3 lines 19-26**).

Regarding claim 2, Kusaki discloses wherein the router is further operable to: receive an outbound packet that includes a destination indicating the mobile unit (**a duplication process operation to which the present information is applied is carried out for the communication data and the control data transmitted from the mobile switching center to the mobile station col. 6 line 9-13**); determine a selection group associated with the mobile unit, wherein the selection group comprises the first BTS and the second BTS; and forward the outbound packet to the first BTS and the second BTS based on the determination (**the duplicated same data is transmitted via a path of the wired-lines, base stations to the mobile station col. 6 line 14-18**).

Regarding claim 4, Kusaki discloses, a roam management module operable to: monitor selection criteria associated with communications between the mobile unit and the first BTS and communications between the mobile unit and the second BTS (); select the second BTS based on the selection criteria (**the error rate of the second cell exceeds the error rate of the first cell col. 3 lines 28-29**); direct the mobile unit to discontinue communications with first BTS and vice versa and direct the router to discontinue selecting from graded packets associated with

Art Unit: 2666

the mobile unit received from the first BTS and the second BTS (**the connection between the wireless station and the first base station is cut out col. 3 lines 30-31**).

Regarding claim 5, Kusaki discloses, the selection criteria comprise a first signal strength for communications between the mobile unit and the first BTS and a second signal strength for communications between the mobile unit and the second BTS (**the first cell transmitted by the first base station and the second cell transmitted by the second station error rates are calculated and a selection is performed based upon the cell whose error rate is lower than that of the other cell col. 3 lines 20-29**).

Regarding claims 6, Kusaki discloses the mobile unit is further operable to transmit a packet encoding the information (**upstream line frame is arranged by user information on which voice and user specific information are mounted when being transmitted from the mobile terminal col. 17 lines 7-9**).

Regarding claims 7, 14, 21, 28 and 35, Kusaki discloses the information comprises voice information received from a user of the mobile unit (**upstream line frame is arranged by user information on which voice and user specific information are mounted when being transmitted from the mobile terminal col. 17 lines 7-9**).

Regarding claims 9, 16, 23 and 30 Kusaki discloses receiving a selection group information, wherein the selection group information identifies the mobile unit (**an up-stream line frame is arranged by user information col. 17 line 7**), the first BTS and the second BTS; and the processor is further operable to determine a first network address for communications from the

Art Unit: 2666

mobile unit and to determine a plurality of second network addresses for communications to the mobile unit **(a mobile switching center connected to a plurality of base stations while initiating a handover process on in while receiving a first cell on the first base station col. 3 lines 7-21).**

Regarding claims 10, 17, 24 and 31 Kusaki teaches an interface further operable to forward the selected one of the graded packets to the first network address **(recognize weather or not a frame containing data to be transmitted to the mobile wireless terminals belongs to a connection of any end-to-end and applying such a transmission col. 4 lines 50-56).**

Regarding claims 11, 18, 25 and 32 Kusaki teaches the interface to receive an outbound packet that includes a destination indicating the mobile unit **(user information 101)** and to forward copies of the outbound packet to each of the second network addresses **(down-stream line frame is constructed of the user information, the control information and a specified channel number, transmitted to the base stations col. 17 lines 29-40).**

Regarding claims 12, 19, 26, 33 and 38 Kusaki discloses the first value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the first BTS; and the second value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the second BTS **(in a wireless section an error rate is detected or measured in unit of the up-stream frame received from the mobile station in the base stations col. 7 lines 25-31).**

Art Unit: 2666

Regarding claim 36 Kusaki discloses a first identifier for the mobile unit (**connection number** col. 16 line 52-65); content including the voice information (**user information** 101 col. 17 line 32); and a metric indicating quality of the wireless link (**control information** 792 col. 17 line 33).

Regarding claim 37 Kusaki discloses a packet identifier that allows a router to select between the packet and a second packet having an identical packet identifier, the second packet generated by a second base transceiver station (BTS) in response to receiving the voice information from the mobile unit via a second wireless link (**communication data and control data transmitted from mobile station to path of wireless line 150B to base station 250B to mobile switching center** col. 6 line 1-7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Kusaki et al. (6, 263,204) in view of Muszynski (5,850,607).

Kusaki et al. discloses all the limitations of claim 1. Kusaki et al. fails to disclose a roam management module operable to: monitor a quality metric associated with communications between the mobile unit and the first BTS; determine that the quality metric has fallen below a threshold; direct the router to select from graded packets associated with the mobile unit received from the first BTS and the second BTS; direct the first BTS and the second BTS to

communicate with the mobile unit; and direct the mobile unit to communicate with the first BTS and the second BTS. Muszynski teaches a pilot signal measurement report that entails a signal coming from the base station, determining when it has weakened below a predetermined threshold, in which those connections in the initial base stations are dropped, the mobile station communicated from now on with the secondary base station and the mobile switching center then utilize the information via the secondary base station (col. 8 lines 37-50). Thresholds values often reflect or are set to the minimum value or strength necessary in order to maintain connection with the mobiles station. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Kusaki to incorporate a predetermined threshold in order to measure the quality of the signal in a mobile system.

5. Claims 13, 20, 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusaki et al. (6,263,204) in view of Mizell et al. (2003/0063582).

Kusaki et al. discloses all the limitations of claims 8, 15, 22 and 29. Kusaki et al. fails to disclose the interface communicates packets associated with a communications session established by the mobile unit using Internet Protocol (IP) communications. Mizell et al. teaches the mobile unit desires to initiate a packet data session with a packet data computer coupled to the packet data network (par 0012). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kusaki et al to interfaces with a computer network in order to support packet data communication that compensates for expansion and contraction of packet data traffic that handles the mobility of serviced units and that may be easily deployed within existing wireless communication systems that supports voice communication.

Art Unit: 2666


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Eugene whose telephone number is 703-305-8978. The examiner can normally be reached on M-F 7am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 703-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

32
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RICKY NGO
PRIMARY EXAMINER